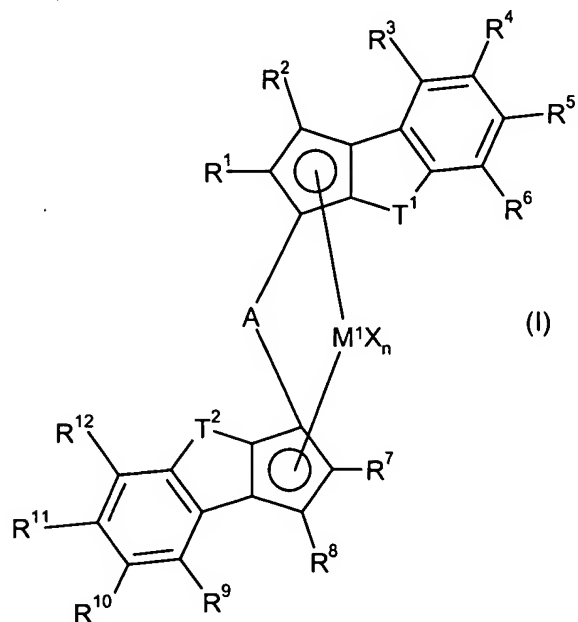


**AMENDMENTS TO THE CLAIMS**

1. (Original) An organometallic transition metal compound of the formula (I)



where

$M^1$  is a metal of group 3, 4, 5 or 6 of the Periodic Table of the Elements or the lanthanides,

X are identical or different and are each an organic or inorganic radical, where two radicals X can also be joined to one another,

n is a natural number from 1 to 4,

$T^1, T^2$  are identical or different and are each a divalent group selected from the group consisting of -O-, -S-, -Se-, -Te-,  $-N(R^{13})-$ ,  $-P(R^{13})-$ ,  $-As(R^{13})-$ ,  $-Sb(R^{13})-$ ,  $-Si(R^{13})_2-$ ,  $-C(R^{13}R^{14})-$ ,  $-C(R^{13}R^{15})-$  and  $-C(R^{14})=C(R^{15})-$ , where  $R^{13}$ ,  $R^{14}$  and  $R^{15}$  are identical or different and are each hydrogen or an organic radical having from 1 to 40 carbon atoms,

$R^1, R^7$  are identical or different and are each hydrogen or an organic radical having from 1 to 40 carbon atoms,

$R^2, R^8$  are identical or different and are each hydrogen or an organic radical having from 1 to 40 carbon atoms,

$R^3, R^9$  are identical or different and are each halogen or an organic radical having from 1 to 40 carbon atoms, where  $R^3$  is not methyl when  $T^1$  is  $-C(H)=C(H)-$ ,

$R^4, R^5, R^6, R^{10}, R^{11}$  and  $R^{12}$  are identical or different and are each hydrogen, halogen or an organic radical having from 1 to 40 carbon atoms, or two adjacent radicals  $R^4, R^5, R^6, R^{10}, R^{11}$  and  $R^{12}$  together with the atoms connecting them form a monocyclic or polycyclic, substituted or unsubstituted ring system which has from 1 to 40 carbon atoms and may also contain heteroatoms selected from the group consisting of the elements O, S, Se, Te, N, P, As, Sb and Si, or,

if  $T^1$  or  $T^2$  is  $-O-$ ,  $-S-$ ,  $-Se-$  or  $-Te-$ , the radical  $R^3$  together with  $R^4$  and/or the radical  $R^9$  together with  $R^{10}$  forms a monocyclic or polycyclic, substituted or unsubstituted ring system which has from 1 to 40 carbon atoms and may also contain heteroatoms selected from the group consisting of the elements O, S, Se, Te, N, P, As, Sb and Si,

and

A is a bridge consisting of a divalent atom or a divalent group.

2. (Original) An organometallic transition metal compound of the formula (I) as claimed in claim 1,

wherein

$M^1$  is an element of group 4 of the Periodic Table of the Elements,

n is 2,

$T^1, T^2$  are identical and are each  $-O-$ ,  $-S-$ ,  $-Se-$  or  $-Te-$ ,

$R^1, R^7$  are identical and are each a  $C_1$ - $C_{10}$ -alkyl radical,

$R^2, R^8$  are identical and are each hydrogen,

$R^3, R^9$  are identical or different and are each a substituted or unsubstituted  $C_6$ - $C_{40}$ -aryl radical or  $C_2$ - $C_{40}$ -heteroaromatic radical containing at least one heteroatom selected from the group consisting of O, N, S and P,

$R^4, R^5, R^{10}$  and  $R^{11}$  are identical and are each hydrogen,

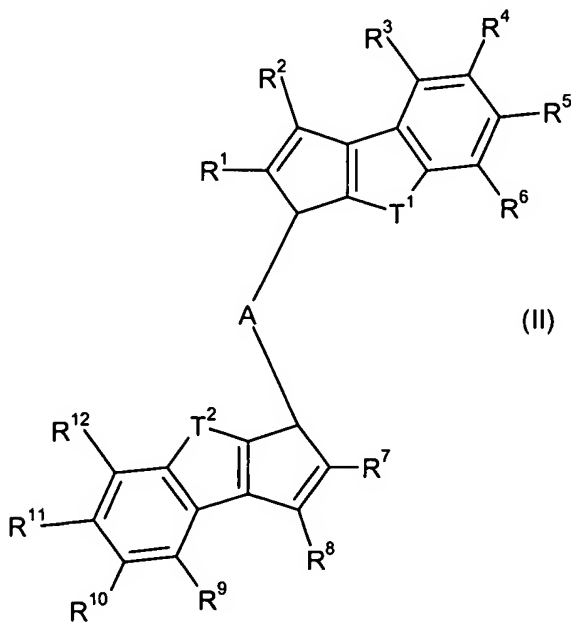
$R^6, R^{12}$  are identical and are each hydrogen or an organic radical having from 1 to 20 carbon atoms,

A is a substituted silylene group or a substituted or unsubstituted ethylene group,

and

the other variables are as defined in claim 1.

3. (Currently amended) A biscyclopentadienyl ligand system of the formula (II)



or one of its double bond isomers,

where the variables  $R^1, R^2, R^3, R^4, R^5, R^6, R^7, R^8, R^9, R^{10}, R^{11}, R^{12}, T^1, T^2$  and A are as defined in formula (I)

$T^1$  and  $T^2$  are identical or different and are each a divalent group selected from the group consisting of -O-, -S-, -Se-, -Te-, -N( $R^{13}$ )-, -P( $R^{13}$ )-, -As( $R^{13}$ )-, -Sb( $R^{13}$ )-, -Si( $R^{13}$ )<sub>2</sub>-, -C( $R^{13}R^{14}$ )-, -C( $R^{13}R^{15}$ )- and -C( $R^{14}$ )=C( $R^{15}$ )-, where  $R^{13}$ ,  $R^{14}$  and  $R^{15}$  are identical or different and are each hydrogen or an organic radical having from 1 to 40 carbon atoms,

$R^1$  and  $R^7$  are identical or different and are each hydrogen or an organic radical having from 1 to 40 carbon atoms,

$R^2$  and  $R^8$  are identical or different and are each hydrogen or an organic radical having from 1 to 40 carbon atoms,

$R^3$  and  $R^9$  are identical or different and are each halogen or an organic radical having from 1 to 40 carbon atoms, where  $R^3$  is not methyl when  $T^1$  is -C(H)=C(H)-,

$R^4, R^5, R^6, R^{10}, R^{11}$  and  $R^{12}$  are identical or different and are each hydrogen, halogen or an organic radical having from 1 to 40 carbon atoms, or two adjacent radicals  $R^4, R^5, R^6, R^{10}, R^{11}$  and  $R^{12}$  together with the atoms connecting them form a monocyclic or polycyclic, substituted or unsubstituted ring system which has from 1 to 40 carbon atoms and may also contain heteroatoms selected from the group consisting of the elements O, S, Se, Te, N, P, As, Sb and Si,

or,

if  $T^1$  or  $T^2$  is -O-, -S-, -Se- or -Te-, the radical  $R^3$  together with  $R^4$  and/or the radical  $R^9$  together with  $R^{10}$  forms a monocyclic or polycyclic, substituted or unsubstituted ring system which has from 1 to 40 carbon atoms and may also contain heteroatoms selected from the group consisting of the elements O, S, Se, Te, N, P, As, Sb and Si,

and

A is a bridge consisting of a divalent atom or a divalent group.

4. (Original) A biscyclopentadienyl ligand system of the formula (II) as claimed in claim 3, wherein

$T^1, T^2$  are identical and are each -O-, -S-, -Se- or -Te-,

$R^1, R^7$  are identical and are each a  $C_1$ - $C_{10}$ -alkyl radical,

$R^2, R^8$  are identical and are each hydrogen,

$R^3, R^9$  are identical or different and are each a substituted or unsubstituted  $C_6$ - $C_{40}$ -aryl radical or  $C_2$ - $C_{40}$ -heteroaromatic radical containing at least one heteroatom selected from the group consisting of O, N, S and P,

$R^4, R^5, R^{10}$  and  $R^{11}$  are identical and are each hydrogen,

$R^6, R^{12}$  are identical and are each hydrogen or an organic radical having from 1 to 20 carbon atoms,

and

A is a substituted silylene group or a substituted or unsubstituted ethylene group.

5. (Currently amended) A catalyst system for the polymerization of olefins comprising at least one organometallic transition metal compound as claimed in claim 1 [~~or 2~~] and at least one cocatalyst which is able to convert the organometallic transition metal compound into a species which displays polymerization activity toward at least one olefin.

6. (Original) A catalyst system as claimed in claim 5 which further comprises a support.

7. (Currently amended) A process for preparing polyolefins by polymerization or copolymerization of at least one olefin in the presence of a catalyst system as claimed in claim 5 [~~or 6~~].
8. cancelled
9. (Currently amended) A process for preparing an organometallic transition metal compound, which comprises ~~reacting a~~ reacting the biscyclopentadienyl ligand system as claimed in claim 3 [~~or 4~~] or a bisanion prepared therefrom with a transition metal compound.
10. (Original) A polyolefin obtainable by the process as claimed in claim 7.
11. (New) A catalyst system for the polymerization of olefins comprising at least one organometallic transition metal compound as claimed in claim 2 and at least one cocatalyst which is able to convert the organometallic transition metal compound into a species which displays polymerization activity toward at least one olefin.
12. (New) A catalyst system as claimed in claim 11 which further comprises a support.
13. (New) A process for preparing polyolefins by polymerization or copolymerization of at least one olefin in the presence of a catalyst system as claimed in claim 11.
14. (New) A process for preparing polyolefins by polymerization or copolymerization of at least one olefin in the presence of a catalyst system as claimed in claim 12.
15. (New) A process for preparing polyolefins by polymerization or copolymerization of at least one olefin in the presence of a catalyst system as claimed in claim 6.
16. (New) A process for preparing an organometallic transition metal compound, which comprises reacting the biscyclopentadienyl ligand system as claimed in claim 4 or a bisanion prepared therefrom with a transition metal compound.